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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 99/17333

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4687696 A	18-08-1987	JP 2115809 C	06-12-1996
		JP 6042113 B	01-06-1994
		JP 61236577 A	21-10-1986
JP 09190104 A	22-07-1997	JP 2724306 B	09-03-1998
JP 04102883 A	03-04-1992	NONE	
JP 06019360 A	28-01-1994	NONE	

# INTERNATIONAL SEARCH REPORT

International Application No.

PC/US 99/17333

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G03G15/00 G03G15/20

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G03G C08F C08L B65H

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 687 696 A (SATOJI FUMINORI) 18 August 1987 (1987-08-18) the whole document ---	1-3
A	PATENT ABSTRACTS OF JAPAN vol. 1997, no. 11, 28 November 1997 (1997-11-28) & JP 09 190104 A (NTN CORP), 22 July 1997 (1997-07-22) abstract ---	1-3
A	PATENT ABSTRACTS OF JAPAN vol. 016, no. 341 (P-1391), 23 July 1992 (1992-07-23) & JP 04 102883 A (TORAY IND INC), 3 April 1992 (1992-04-03) cited in the application abstract ---	1-3

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"3" document member of the same patent family

Date of the actual completion of the international search

9 November 1999

Date of mailing of the international search report

15/11/1999

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl

Authorized officer

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# INTERNATIONAL SEARCH REPORT

International Application No

PC1/US 99/17333

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>PATENT ABSTRACTS OF JAPAN  vol. 018, no. 228 (P-1730),  25 April 1994 (1994-04-25)  &amp; JP 06 019360 A (TORAY IND INC),  28 January 1994 (1994-01-28)  cited in the application  abstract</p> <p>-----</p>	1-3

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference AD6580	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US99/17333	International filing date (day/month/year) 29/07/1999	Priority date (day/month/year) 30/07/1998
International Patent Classification (IPC) or national classification and IPC G03G15/00		
Applicant E.I. DU PONT DE NEMOURS AND COMPANY et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand  31/01/2000	Date of completion of this report  02.03.2000
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer  Hiltner, K  Telephone No. +49 89 2399 2198  

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US99/17333

**I. Basis of the report**

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

**Description, pages:**

1-8 as originally filed

**Claims, No.:**

1-3 as originally filed

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes:	Claims	1-3
	No:	Claims	
Inventive step (IS)	Yes:	Claims	1-3
	No:	Claims	
Industrial applicability (IA)	Yes:	Claims	1-3
	No:	Claims	

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US99/17333

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**2. Citations and explanations**

**see separate sheet**

**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/US99/17333

re item V (Reasoned statement ...):--

The single independent claim comprises the molecular weight and the particle size of the PTFE powder which is not disclosed in any of the documents of the ISR.

Hence Art. 33(2) PCT is not infringed.

US-A-4 687 696 and JP-A-09-190 104 (English abstract) do not disclose separation fingers formed by compression molding from a blend of PI and PTFE but fingers from PI which are partially dip-coated by PTFE. The known fingers are therefore of completely different type.

The JP-applications Hei 4-102 883 and Hei 6-019 360 are acknowledged on page 1, third paragraph, their respective English abstracts are cited in the search report (called D1 and D2). They disclose a separation finger according to the preamble of claim 1 wherein the blend ratio between PI and PTFE is between 30 to 70 and 90 to 10.

No molecular weight and no particle diameter for the PTFE are suggested in D1 or D2. Hence Art. 33(3) PCT is not infringed.

Electrophotographic imaging devices or parts thereof such as separation fingers are industrially applicable; Art. 33(4) PCT is not infringed.

re item VII (Certain defects..):--

1. The two-part form of claim 1 (Rule 6.3 (b)) is not appropriate, since weight ratios between 70 to 30 and 90 to 10 for the blend PI to PTFE are known from D1 and D2 which weight ratios are included in the range of the characterising portion of the claim.
2. In Table I, right column: it is assumed that the finger surface condition is observed.
3. Claim 3, last line: finger has worn..



## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>AD6580</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/US 99/ 17333</b>	International filing date (day/month/year) <b>29/07/1999</b>	(Earliest) Priority Date (day/month/year) <b>30/07/1998</b>
Applicant <b>E.I. DU PONT DE NEMOURS AND COMPANY et al.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☒ None of the figures.

09/743880 RECEIVED

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

MAR 07 2000

PCT

PATENT RECORDS  
CENTER

To:

Belopolsky, Inna Y.  
E.I. DU PONT DE NEMOURS AND COMPANY  
Legal Patent Records Center  
1007 Market Street  
Wilmington, DE 19898  
ETATS-UNIS D'AMERIQUE

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT

(PCT Rule 71.1)

Date of mailing  
(day/month/year)

02.03.2000

Applicant's or agent's file reference  
AD6580

## IMPORTANT NOTIFICATION

International application No.  
PCT/US99/17333International filing date (day/month/year)  
29/07/1999Priority date (day/month/year)  
30/07/1998

Applicant

E.I. DU PONT DE NEMOURS AND COMPANY et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

## 4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

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Authorized officer

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CLS NOTED

3.8.2000  
MJSB

NF2 1/30/2001